

# **\*\*ATTENTION\*\***

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WASHINGTON *Wetlands*



WOOD DUCK — JIM PRUSKE

*Time is Running Out*

## Time Is Running Out For Wetlands Fish and Wildlife

That is because time is running out for Washington wetlands. Since Washington was settled, nearly 90 percent of Washington wetlands have been degraded; about 50 percent have been lost outright. In spite of our knowledge of their importance, several thousand acres of wetlands are lost every year. Those losses translate directly to losses of wildlife.

### What Are Wetlands?

Wetlands are bogs, swamps, marshes and similar areas. These diverse environments share several characteristics:

- Periodic flooding, as in tidal cycles, seasonal flood cycles or seasonally high water tables.
- Communities of plants that thrive in moist, undrained soils for all or part of their lives. Examples of wetland plant communities include cattail marshes, as well as streamside trees and shrubs like willow.

Major wetlands are located near large bodies of water such as the bays and inlets of Puget Sound, the sloughs and side channels of major rivers and the edges of larger lakes. Yet the vast majority of wetlands are small. These include boggy woodlands in the suburbs, wet meadows in forests and small streams that meander through agricultural areas, neighborhoods, commercial areas and industrial parks.

## Wetland Wildlife and Fish

Wetlands are complex habitats, usually forming the boundary between an aquatic environment and the land. They attract wildlife from both environments. In Western Washington alone, 236 animal species use wetlands and their buffers as their primary breeding or feeding habitats. Over half of the fish and wildlife of Washington use wetlands at some time in their lives.

Coastal estuaries and saltmarshes are vital nursery and feeding areas for all anadromous fish, including salmon, steelhead, cutthroat and Dolly Varden trout. Most other important marine sport and food fish also depend on saltmarshes during some phase of their lives. And almost all shellfish, including Dungeness crab, clams and oysters require healthy estuaries and wetlands.



AMERICAN BITTERN — JIM PRUSKE



Inland wetlands are vital for the survival of freshwater fish. Many fish species feed in wetlands or eat wetland-produced food. In fact, coho salmon and cutthroat trout grow as much as six times faster in wetlands than in streams. Oxygen, a critical element for fish survival, is produced by aquatic plants and released into the water. Essential nutrients are recycled in wetlands and form the basis of a healthy food chain. Wetlands serve as nurseries and provide escape cover for juvenile fish. Almost all important recreational fish use the deeper margins of wetlands for spawning.

Wetlands are storehouses of nutrients—debris carried great distances, left where it can decompose and be eaten by organisms ranging from bacteria to great blue herons. These nutrients are critical to migratory fish and wildlife.

Because they are among the most productive natural environments, wetlands can sustain diverse wildlife populations in great numbers. As complex communities of standing water, rich soils and plant material, wetlands create protective cover where wildlife can safely feed, breed and rear their young.

### **Wetland Losses = Fish and Wildlife Losses**

In wildlife terms, the loss of even small amounts of wetland habitat is very significant. For example:

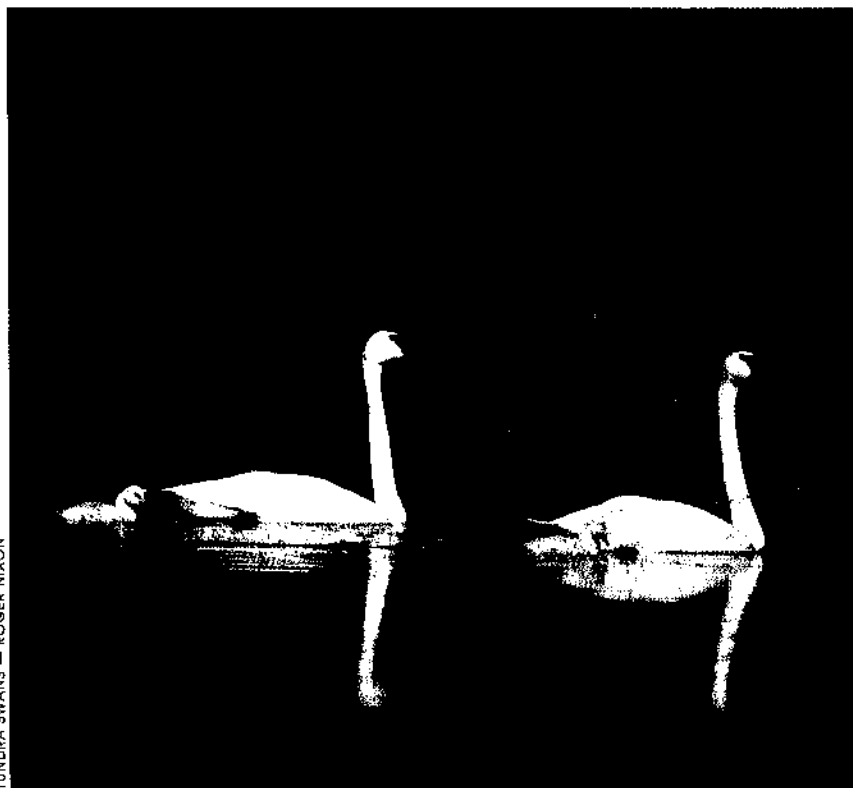
A half-acre wetland can provide feeding and breeding habitat for a small flock of green-winged teal and ten other migratory birds. The marsh may also provide overwintering habitat for cutthroat trout and several hundred juvenile coho salmon. In addition, one pair of marsh wrens, two pairs of red-winged blackbirds, one pair of bitterns and 20 Townsend voles may feed and breed in the marsh. Wild visitors to the wetland may include great blue herons, osprey, deer, raccoons and other animals. If, however, this half-acre wetland is filled or drained, fish and wildlife production will be lost—permanently. Multiplied by the thousands of acres of wetlands lost in Washington each year, cumulative effects on fish and wildlife are staggering.



GREAT BLUE HERON — KRIS & CINDY KENNEDY



GREAT BLUE HERON — KRIS & CINDY KENNEDY



## Wetlands and Water Quality

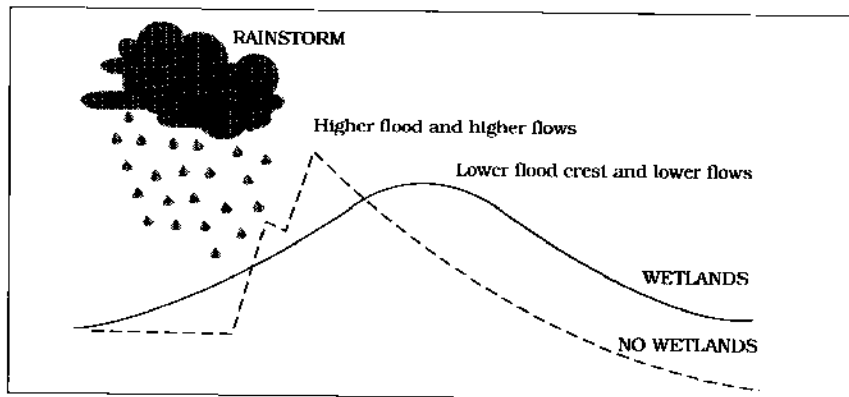
Clean water is essential for healthy fish and wildlife. Wetlands are one of nature's most effective methods of cleaning water. Silt and contaminants settle in wetlands and are bound tightly in accumulating clay and other sediments. Wetlands filter out unwanted substances before they reach our water supplies, shellfish beds and wildlife nurseries. Wetlands act as temporary storage sites for floodwater. They slow the movement of water, reducing its destructive ability. They hold "extra" water during times of high precipitation and runoff and absorb large quantities of debris and silt without damage to streets, sewers, homes or businesses.



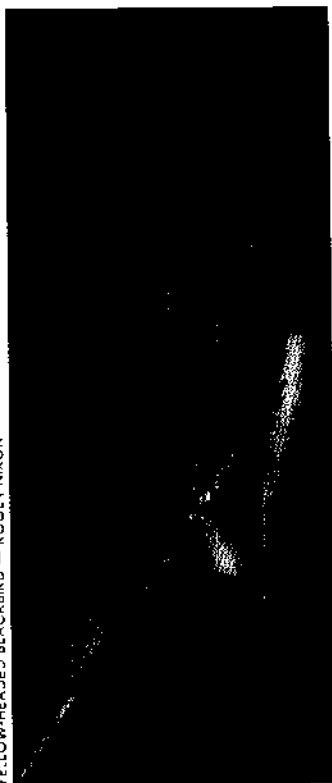
## The Economic Value of Wetlands

Wetlands are given economic value according to two methods. The first is the market value of their products (primarily fish, shellfish and furbearers) and the economic importance of activities related to using or enjoying their resources. In Washington, wetlands are crucial to fisheries and furbearer resources. Commercial fisheries alone generate hundreds of millions of dollars annually in the market value of their catch. Anglers, wildlife photographers, observers and hunters spend additional hundreds of millions of dollars on equipment, lodging and food associated with the recreational use of wildlife. Much of this economic activity depends on wetlands.

The second method is based on the "work" that is performed in wetlands in flood



ELK — BRUCE RICHARDS/DICK HANCOCK



control, food production and groundwater recharge. Economists have established that wetlands with active water flow are worth \$30,000 or more per acre based on the cost of man-made alternatives like flood-control reservoirs or deeper wells alone.

### **Wetlands and Growth—Planning for Both**

Preserving wetlands doesn't necessarily mean that our communities can't grow. Planning for growth and wetlands means seeing all the functions that wetlands provide and preserving the processes by which they contribute to wildlife, water quality and flood control. It means perpetuating wetlands resources for educational and recreational purposes. Most important, it means maintaining diversity that creates vitality in human habitats. Wetlands attract and sustain wildlife and add a natural component to our urban, suburban and agricultural landscapes—diversity that improves our quality of life.

### **The Washington Department of Wildlife and Wetlands**

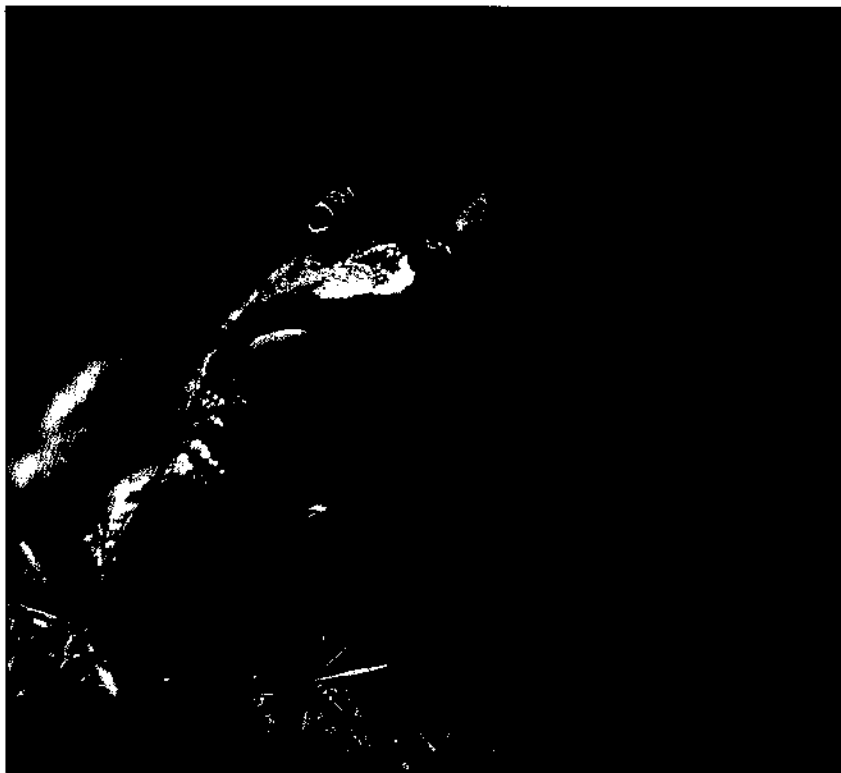
The Department of Wildlife manages the second largest wetland acreage among Washington state agencies. About 150,000 acres of wetlands are included in the department's Wildlife Areas Program. In addition, we protect wetlands in a variety of ways—including habitat acquisition, enhancement, review of permits under a variety of state and federal environmental regulations, and technical assistance to citizens and other agencies.

Programs in the department with specific wetland preservation tools include:

**Land Ownership**—236 miles of shoreline on freshwater wetlands, rivers and lakes; 41 miles of shoreline on coastal wetlands; 44,000 acres of riparian/bottomland hardwood habitat; 20,000 acres of salt- and freshwater ponds and wetlands and 50,000 acres of lakes.

**Duck Stamp Program**—Over \$2 million has been raised for wetland acquisition and enhancement for waterfowl through the sale of permit stamps required for hunting waterfowl and the sale of artwork associated with the stamps.

**Volunteer Cooperative Fish and Wildlife Projects Program**—Provides funding to individuals, organizations and other agen-



BULLFROG — JIM PRUSKE



cies for projects that promote habitat protection or enhancement, research, facility development, public awareness and artificial production of fish and wildlife. Department funding has supported wetlands enhancement, waterfowl nestbox installation and wetlands education.

**Technical Services Program**—Provides technical assistance to landowners and other agencies for identification and proper management of wetlands and other critical habitats.

**Regulatory Services Program**—Reviews hydraulic permit applications and other permits as required by a variety of environmental regulations, including those that protect wetlands.

Despite these activities aimed at wetland protection, the Washington Department of Wildlife and other natural resource agencies face an uphill battle in preserving wetland resources in Washington. Only an estimated 24 percent of wetlands actually are protected by laws or regulations which assure their preservation. The majority of wetlands—and wetland fish and wildlife—are under siege.

The mission of the Washington Department of Wildlife is to “preserve, protect and perpetuate Washington’s diverse wildlife and wildlife habitats...and maximize the recreational and aesthetic benefits of wildlife for all citizens.”

But the Department of Wildlife cannot preserve and protect Washington’s vanishing wetlands without your help. Saving wetlands is everybody’s business.

*Don’t let time run out for wetlands wildlife.*



COLUMBIA WHITE-TAILED DEER — KRIS & CINDY KENNEDY

Washington Department of Wildlife



Serving Washington's  
wildlife and people  
now and in the  
future.

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